Supporting Information

Interaction between Amyloid-*β* Peptide and Heme Probed by Electrochemistry and Atomic Force Microscopy

Yanli Zhou, Jing Wang, Lantao Liu*, Rongrong Wang, Xinhe Lai, and Maotian Xu*

Department of Chemistry and Chemical Engineering, Shangqiu Normal University, Shangqiu 476000, China.

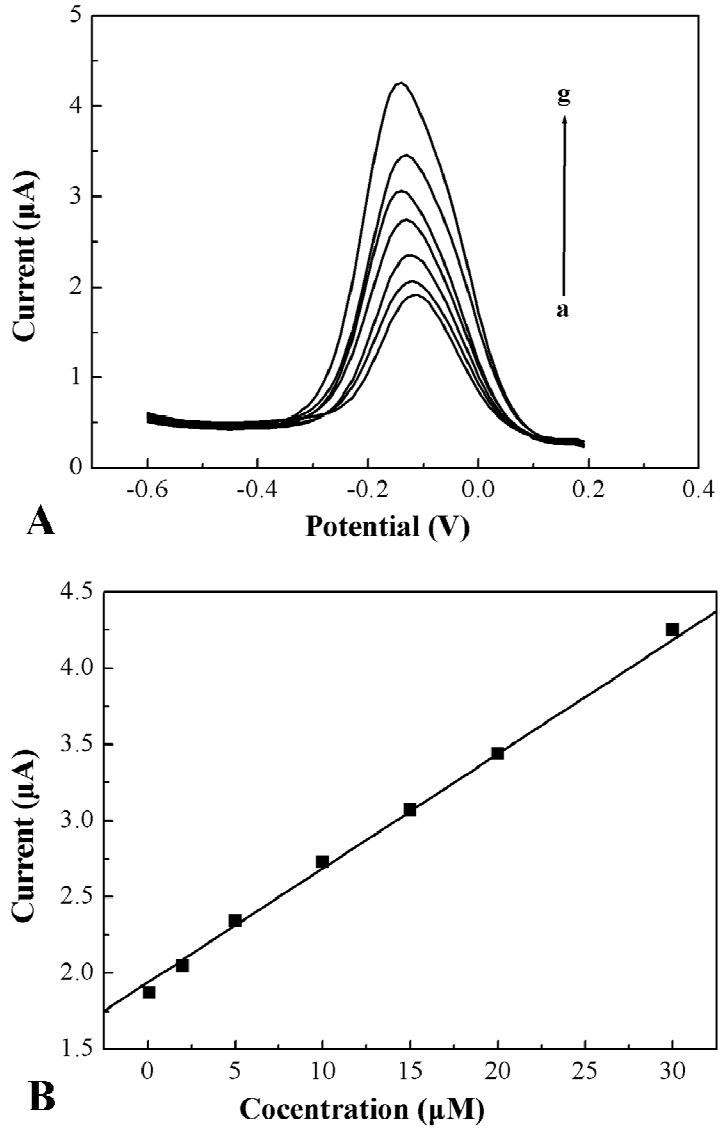

Figure S1. (A) DPV of different concentration of heme in 0.1 M PBS (pH 7.4): (a) 0.1, (b) 2, (c) 5, (d) 10, (e) 15, (f) 20, and (g) 30 μM; (B) Calibration plots of the reduction peak current *vs*. concentration of heme. Amplitude was 0.05 V and pulse width was 0.2 s.

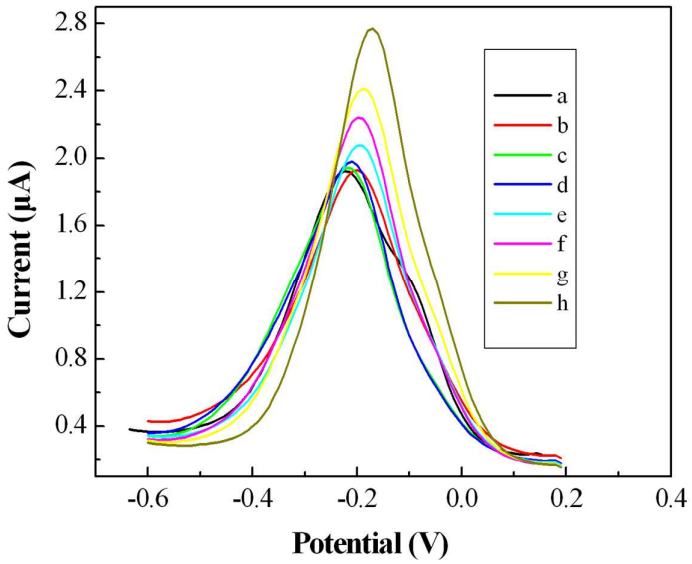

Figure S2. DPV of unbound heme in 0.1 M PBS (pH 7.4). The total concentration of heme: (a) 1, (b) 2.5, (c) 5, (d) 7.5, (e) 10, (f) 12.5, (g) 15, and (h) 20 μM. Amplitude was 0.05 V and pulse width was 0.2 s.

Table S1. Concentration of the total heme, bound heme, free heme[a].

Concentration	a	b	c	d	e	f	g	h
C_{total} (μM)	1	2.5	5	7.5	10	12.5	15	20
C_b (μM)	0.98	2.43	4.75	6.6	7.8	8.4	8.6	8.9
C_f (μM)	0.02	0.07	0.25	0.9	2.2	4.1	6.4	11.1

[a]Free heme refers to unbound heme at the end of the 1 h incubation of 5 μM Aβ1-42.

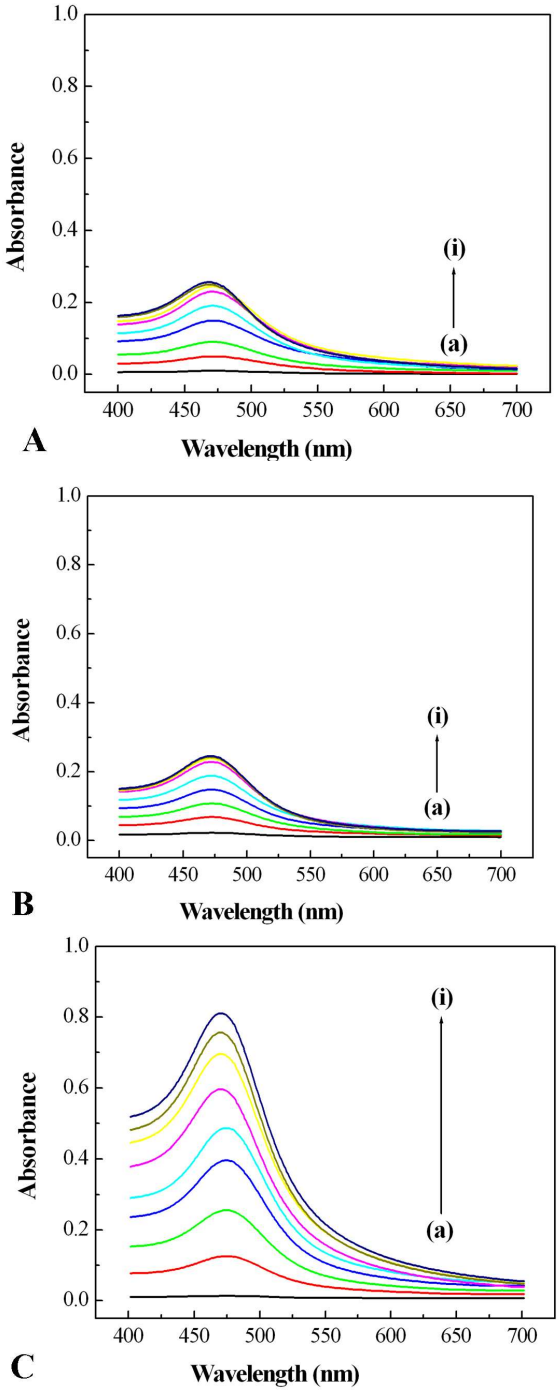

Figure S3. Absorbance spectra of oxidation product for guaiacol in the solution including free heme (A), heme-Arg5Asn complex (B), and heme-Aβ1-42 complex (C), after different time: (a) 0, (b) 5, (c) 10, (d) 20, (e) 30, (f) 50, (g) 80, (h) 100, and (i) 120 min.